Q2 Review Honors Math 2 Name_____Period___

1. What is the vertex of $f(x) = 2(x - 4)^2 - 6$?	2. What are the x-intercepts of $f(x) = 2(x - 7)(x + 3)$?
3. Given $f(x) = ax^2 + bx + c$, what does the $x = -b/2a$ represent?	4. Find the axis of symmetry $F(x) = 2x^2 + 8x - 2$
5. Factor completely. $x^2 - 7x + 10$	6. Factor completely. $12x^2 + 19x - 18$
7. Factor completely. $8x^3 + 1$	8. Factor completely. $n^2 - 64$
9. Factor completely. $2x^2 + 7x - 15$	10. Factor completely. $2x^3 - 7x^2 - 8x + 28$

11. Solve. $2(m - 7)^2 = 16$	12 Solve. $x^2 + 12x - 45 = 0$
13. Solve. $r^2 - 13r + 42 = 0$	14. Solve. $3x^3 - 4x^2 - 27x + 36 = 0$
15. . Evaluate $f(x) = x^3 - 2x^2 + 5x + 6$ for $x = -1$.	16. Divide $x^3 + 5x^2 - 7x + 2$ by $x - 2$ using synthetic division.
17. Describe the **end behavior** of the polynomial function by completing the statements. $f(x) = -2x^3 + x^2 - 5$	18. $x - 5$ is a factor of $f(x) = x^3 - 11x^2 + 14x + 80$ Factor $f(x)$ completely.